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ENVIRONMENTAL SAMPLING PROJECT

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TASK FORCE MEETING

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15

January 26, 2000

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6:30 p.m.

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1 TASK FORCE MEMBERS

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3 Dick Nolan

4 Gene Bernardi

5 Carroll Williams

6 Fran Packard

7 Evelyn Fisher

8 Miriam Ng

9 Sue Markland Day

10 Nabil Al-Hadithy

11 Edgar Bailey

12 Steven Rathbone

13 Keith matthews

14 Paul Lavelly

15 David McGraw

16 Amy Kyle

17 Periann Wood

18 Laurie Bright

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1 MS. DOUGHERTY: Good evening. We thank you
2 very much for your attention, and we want to name,
3 first of all, some stuff that's obviously happening,
4 and it seems clear, but we want to make sure everybody
5 is aware.

6 As we walked in today, we noted a lot of
7 people with signs and various -- raise your hands --
8 signs and people who are expressing strong feelings,
9 and we want to note from the beginning for the record
10 that this is a meeting that has lots of conflict
11 attached to it and lots of conflicting feelings.

12 So I think that's the first, foremost thing
13 we want to say, that we know addressing in tonight's
14 meeting, Lawrence Berkeley -- look what I did. I did
15 it already -- Berkeley National Laboratory has -- is
16 attempting to change the way they have interacted
17 historically in the Berkeley community.

18 So tonight represents a very big shift for
19 them, and I think you'll be able to hear Dr. Shank in
20 a couple of minutes talk about why they're shifting,
21 and it represents the fact that they really do want to
22 hear the feedback of people.

23 Now, the process that's being used is a
24 little bit different than some of you may be used to,
25 and we've been asked very politely by one of the task

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1 force members if we would please consider moving
2 public comment to the beginning of the meeting
3 because -- one second -- because many of you have not
4 eaten, and many of you have concerns about the
5 structure of the meeting. You haven't -- although
6 some of you told us you've seen this kind of meeting
7 before as well.

8 We have to tell you that it is not our desire
9 -- recommendation as facilitators to do that because
10 we're engaging in a process with eventually 22 people
11 at the table, and while you, the public, are welcome
12 and invited to attend, the process here today is for
13 Berkeley Lab to create relationships with the State
14 representatives at this table, and so we honor and
15 welcome your comments. We want to hear them.

16 We have a court reporter -- Laura, would you
17 stand up, please, for just a second? Can you -- we
18 have a court reporter in the room because we do not
19 want there to be any confusion or misunderstanding
20 about minutes.

21 It's a truism that is also true that whoever
22 takes the minutes has the power. We are well aware of
23 that. So to take that sting out of who keeps the
24 records, whether it's us as facilitators or whether
25 it's any individual in the room, we've asked that a

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1 court reporter, a neutral, non-lab employee, be hired
2 to take down our process word-for-word.

3 We would also comment -- my name is Sheryllyn
4 Dougherty. This is Pat Duffy next to me. Pat and I
5 are interested in one thing and one thing only in this
6 process, and that is in creating dialogue between
7 Berkeley National Laboratory and this community, and
8 for some of you, that will be an unbelievable thing,
9 and we expect no trust in this room. None.

10 And we have much experience of dealing with
11 unhappy groups of people who have no trust, for good
12 reasons, by the way. Many of you have good reasons
13 for feeling this way. Okay. And so just as an
14 introductory comment, we want to start out saying we
15 see you. We know you're here. We recognize it's
16 very, very hard to not be part of a membership group
17 like in --

18 MS. BERNARDI: I'm going to interrupt you
19 because I did -- unfortunately, I made this request --

20 MS. DOUGHERTY: It's very important, Gene,
21 that -- but, Gene --

22 FROM THE FLOOR: Let her speak.

23 MS. BERNARDI: I have a letter from the
24 Berkeley City Council members that was
25 addressed to Charles Shank, director Charles Shank,

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1 and we have a copy, and I'd like to read it to
2 everybody here.

3 MS. DOUGHERTY: But, Gene --

4 FROM THE FLOOR: Let her finish. You said
5 you wanted to hear from the --

6 MS. BERNARDI: "We have received several
7 concerns from our constituents regarding the Lawrence
8 Berkeley National Lab's environmental sampling task
9 force. It has been brought to our attention that the
10 public comment period for the first meeting scheduled
11 for Wednesday, January 26, 2000 has been placed at the
12 end of the meeting.

13 "It is customary at the City Council meetings
14 to hold public comment at the beginning of the
15 meetings so that the concerns and issues can be
16 properly considered and addressed. Therefore, we ask
17 you to arrange the agenda for the Wednesday meeting so
18 the public can comment at the beginning of the
19 meeting. Thank you for your time and consideration,
20 Vice-mayor Maudelle Shirek, Kriss Worthington,
21 Margaret Breland, and Dona Spring."

22 We would like to have that honored. We have
23 people here. This is a meeting during dinner time.
24 They have not been able to indulge in the light
25 buffet, and they should not have to wait for two hours

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1 in order to be able to make their comments. We would
2 like you to do what is traditional in Berkeley at the
3 Berkeley City Council meetings, at all the commission
4 meetings. I mean, it's just a usual procedure. Why
5 should this be any different -- from the public now
6 before we do anything else --

7 MS. DOUGHERTY: We appreciate -- it would
8 be really helpful if you guys could hear us out for a
9 second. We appreciate that this is a non-traditional
10 way of beginning a process. It's not one you're used
11 to.

12 MS. DUFFY: And conducting a process.

13 MS. DOUGHERTY: And conducting a process.
14 We will also tell you that it has been extremely
15 effective in many, many circumstances in helping
16 people who have not previously felt or been heard by
17 large institutions of whatever sort to get their voice
18 and their process into a program or an agenda.

19 FROM THE FLOOR: But you make us wait for
20 two hours until we all leave, we get to be heard? Is
21 that what you're saying?

22 MS. DOUGHERTY: I think what we want to
23 make sure we do is recognize that the agenda came out
24 to the members ten days ago or so, and one of the
25 things that -- where most of you who came expecting

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1 you were going to get to talk first, one of the things
2 that Berkeley Lab has done is put up a website where
3 you -- we're not done yet. We're not done.

4 FROM THE FLOOR: Cut the crap. We want to
5 talk. This is not traditional, but it's actually very
6 traditional for Lawrence Berkeley Lab to --

7 MS. DOUGHERTY: I think it's real important
8 you understand that we need to stick to the agenda as
9 written tonight, and I'm sorry for those --

10 FROM THE FLOOR: Agenda to shut out the
11 community and has been for two years. It's very
12 interesting that you have a stenographer here to take
13 minutes. There was never a stenographer, and you
14 never agreed to have minutes while members of the
15 community were part of the Tritium Issues task force,
16 and was redesigned, and now they're going to take
17 minutes. That's very interesting. It shows how
18 you're good at manipulating the process, and this is
19 just another type of typical way to have the --

20 FROM THE FLOOR: Let the community speak.

21 FROM THE FLOOR: You say you want to hear
22 from us. Wait two hours, you know, we're going to go
23 home if we wait for two hours.

24 FROM THE FLOOR: This is a very important
25 item, and you know it, don't you? The way you rig

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1 everything.

2 MS. DOUGHERTY: Well, I think --

3 FROM THE FLOOR: You are the bullies of the
4 community. We are the grass roots. We want to be
5 heard. We will be heard.

6 MS. DOUGHERTY: You know what? This isn't
7 about --

8 FROM THE FLOOR: This is just as much a
9 shame as what you did --

10 FROM THE FLOOR: Community in --

11 FROM THE FLOOR: -- the TIWG.

12 MS. DUFFY: You're going to force us to
13 close you out is what you don't want here.

14 MS. DOUGHERTY: We don't want to do that.

15 FROM THE FLOOR: We've been shut out for two
16 years, by the way, so that's nothing new. We're used
17 to that process. This is the lab's modus operandi.
18 They come here. They tell us, "We want to hear from
19 the community. We want to be listening to the
20 community." As soon as the community wants to speak,
21 "Oh, you sit there for two hours listening to what we
22 got to say, and those of you that are left that
23 haven't been confused by all our crap, you can have
24 your say then for three minutes." Uh-huh. We know
25 what it's all about.

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1 MS. BERNARDI: You might as well get it
2 over with.

3 FROM THE FLOOR: Every city --

4 MS. DOUGHERTY: You had a responsibility to
5 let your group know that this is -- we've been told by
6 a number of you there is --

7 MS. BERNARDI: What are you talking about?
8 We weren't asked to respond ahead of time. I don't
9 know what you're --

10 MS. DUFFY: You had the agenda, and you
11 chose to handle it this way.

12 FROM THE FLOOR: Let's vote. You guys
13 believe in democracy here.

14 MS. DOUGHERTY: You know what? What's
15 really interesting --

16 FROM THE FLOOR: You want to establish at
17 the get-go that you call all the shots.

18 FROM THE FLOOR: We know that you guys
19 don't listen.

20 FROM THE FLOOR: Let's vote.

21 FROM THE FLOOR: What do you have against
22 an elected -- a referendum? What do you have against
23 the ballot?

24 MS. DOUGHERTY: I would say that we're
25 going to have to tell you that --

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1 FROM THE FLOOR: We need to speak.

2 MS. DOUGHERTY: It's disappoint --

3 FROM THE FLOOR: When?

4 MS. DUFFY: At the end of the
5 meeting --

6 FROM THE FLOOR: Why don't we put it to a
7 vote? Are you that against democracy that you would
8 not allow a vote?

9 MS. BERNARDI: Let's have a vote.

10 MS. NG: You know, I am one of the
11 community, too.

12 FROM THE FLOOR: We get to vote --

13 MS. DUFFY: These people need respect
14 as well.

15 FROM THE FLOOR: They've got a right to
16 vote, and their vote should count just as much as
17 ours.

18 FROM THE FLOOR: It's our community. It's
19 our lives.

20 MS. DOUGHERTY: Here's what we'd like to
21 do --

22 FROM THE FLOOR: They can speak, too. It
23 isn't disrespectful.

24 MS. BERNARDI: I don't think you have been
25 told the history of the last task force. The TIWG

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1 group, which met for 27 months, and the first couple
2 of meetings nothing happened because this group of
3 people would not allow the proceedings to continue
4 until they allowed it to be video graphed because there
5 were no minutes being taken, and we wanted a record of
6 it.

7 We sat for five, six hours, all of one
8 meeting and half of the next, until a representative
9 from Congressman Ronald Dellums' office came, and
10 suddenly after the coffee break when they realized who
11 his aide was, they changed their mind and decided to
12 videograph it. I just want you to know that you're
13 wasting time. You might as well go ahead and have the
14 comment period first. You're being very, very
15 degrading --

16 MS. DOUGHERTY: The rest of you, what would
17 you like to do?

18 MS. BERNARDI: -- by not doing the
19 traditional commenting at the beginning.

20 MS. DOUGHERTY: We would like to talk to
21 task force members since you guys are the task force
22 members, and Miriam has --

23 FROM THE FLOOR: And the community doesn't
24 count?

25 MS. DOUGHERTY: And we would like to ask

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1 you guys if you would like to hear public comment now.

2 You're the task force.

3 MS. DUFFY: But we also know that this
4 is intimidating circumstances.

5 MS. DOUGHERTY: And we have to let you guys
6 know --

7 FROM THE FLOOR: Intimidating? Watch what
8 you --

9 MS. DUFFY: We will make the --

10 FROM THE FLOOR: Because it's not really
11 democracy.

12 MS. DUFFY: Let's get here --

13 FROM THE FLOOR: Talk about intimidation.

14 MS. DOUGHERTY: You said you feel strongly
15 you want the time at the --

16 MS. NG: I wanted -- as I am a
17 member of the community, and I am here to speak as
18 well. So I want agenda moved.

19 MS. DUFFY: What do you mean moved?

20 MS. NG: Move let her speak.

21 MS. BERNARDI: I am a member of the
22 community, and I would like to make a motion that you
23 have the public comments first. What's this going
24 around quietly talking to each person? I find that
25 very strange.

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1 FROM THE FLOOR: Make a motion, Gene.

2 MS. BERNARDI: I would like to --

3 MS. DUFFY: We don't allow that.

4 MS. BERNARDI: Did everybody know here we

5 can't --

6 MS. DOUGHERTY: We don't vote, that's

7 right, because the purpose in dialogue is trying to

8 have --

9 FROM THE FLOOR: We don't vote?

10 FROM THE FLOOR: -- without a vote. That

11 sounds a lot like dictatorship to me.

12 MS. DOUGHERTY: It's real important that we

13 would like to poll the members who have taken their

14 time and agreed to be here and see what you guys would

15 like to do. We like to hear what you guys feel.

16 FROM THE FLOOR: We feel a little angry in

17 case you haven't caught on.

18 MS. DOUGHERTY: We want to hear what --

19 UNIDENTIFIED: Can everybody out there

20 hear what she's saying?

21 FROM THE FLOOR: No, but I don't think we're

22 supposed to be included.

23 MS. DOUGHERTY: I apologize for that.

24 Microphones are not working. Laurie would like to

25 speak

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1 MR. BRIGHT: I think it makes very
2 little difference to me personally whether they speak
3 at the beginning or at the end. If they want to speak
4 at the beginning, that's fine with me. If the task
5 force wants to hear them, that's fine with me. If the
6 task force wants to wait, that's fine, too, but I
7 think if we stand here arguing about it for another
8 hour --

9 MS. DOUGHERTY: We'd like to not waste
10 time. We don't want to waste anyone's time.

11 MR. BRIGHT: I would like to let them
12 speak and get on with it.

13 UNIDENTIFIED: I appreciate that this is
14 LBL's meeting, and LBL sets the rules for its
15 meetings. However, it would not seem inappropriate,
16 and I don't think too much of a burden, to have a
17 period equivalent of the City Council's way of
18 public --

19 MS. DUFFY: Well, we have a period of
20 that. We do have a period, just so you know. It's on
21 the agenda.

22 FROM THE FLOOR: I thought you were polling
23 them. I didn't think you were arguing with them about
24 it.

25 MS. DOUGHERTY: Mr. Bailey, is it? I'm

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1 sorry. And what would you like to do?

2 MS. DUFFY: Or you don't have to have
3 an opinion.

4 MS. DOUGHERTY: Not everybody has one right
5 now.

6 MR. BAILEY: I think there should be a
7 public comment period, and maybe we could have it
8 either now or at the time that's on the agenda.

9 MS. DUFFY: Just so you know, it is on
10 the agenda.

11 MS. DOUGHERTY: Does everybody know that?
12 You understand it is on the agenda, and the complaint
13 is that it's later and not now. Okay. So we're not
14 complaining it's not going to happen.

15 UNIDENTIFIED: I personally think that
16 public comment isn't used very well at the very
17 beginning of a meeting because at the end, you can
18 make the comment on what's been said during the
19 meeting. It's much more effective.

20 MS. DOUGHERTY: Steve?

21 FROM THE FLOOR: Some of us can't stay. We
22 have lives.

23 MS. DUFFY: Could you just wait a
24 minute?

25 MR. BRIGHT: Could I get an agenda?

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1 UNIDENTIFIED: I have no preference.

2 UNIDENTIFIED: No preference.

3 MR. MCGRAW: Stick to the time it was
4 allocated.

5 UNIDENTIFIED: I would like to hear half
6 hour about --

7 MS. DOUGHERTY: You guys, I want to tell
8 the whole group we have had a couple of suggestions.
9 Most people are saying now or later is okay. One
10 person has said for clarification -- we're just
11 summarizing. For clarification, one person has said
12 that they would prefer to have the conversation about
13 the process for the dialogue meetings first and then
14 your public comment, and the only other comment we
15 have is we stay to the agreed upon time frame so we
16 can get through the agenda. Dick, you said now or
17 later?

18 MR. NOLAN: I think we could proceed
19 now as long as we stick to the time limits and the
20 time frame that was planned for at the end of the
21 meeting.

22 MS. DOUGHERTY: And, Gene, you've already
23 made your --

24 MR. WILLIAMS: I would like to get
25 started, and if getting started means that the public

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1 process begins the meeting, then so be it.

2 MS. DOUGHERTY: And Fran?

3 (Unintelligible.)

4 MS. DOUGHERTY: Let me just comment to you
5 members of the group what we're doing tonight is in
6 response to a very, very powerful set of feelings that
7 are being expressed, and we want to recognize and
8 acknowledge that there are people who have very high
9 emotion in the room, and they feel -- clearly feel --
10 some people feel not heard.

11 We are not suggesting this is the precedent
12 for every single one of these meetings. We will have
13 to make a decision as a task force later on how to
14 proceed. So the question is have we decided we want
15 to go ahead and allow -- keep to the time frame?
16 That's the main consensus?

17 Okay. You guys, since we have a fairly good
18 consensus, we want to get back to the agenda as
19 quickly as possibly.

20 FROM THE FLOOR: Can't hear you. Speak
21 louder.

22 MS. DOUGHERTY: I'm sorry. I do not have a
23 microphone. We don't have a microphone

24 MS. DUFFY: We don't really need one I
25 should think. If people are quiet, you don't need

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1 a --

2 MS. DOUGHERTY: If people are quiet, my
3 voice can usually be heard. So I'll try and project
4 it to the back of the room. What we would like to do
5 is talk about who gets to comment, and we will
6 regulate the time, and when the time is over, the
7 allocated public comment time period, we will shut
8 down public comment and begin the rest of this
9 meeting. So is everyone clear about that?

10 Okay. There is no microphone. The
11 microphone -- we had technological failure.

12 FROM THE FLOOR: Like happens at the plant
13 sometimes.

14 MS. DOUGHERTY: I'm sorry?

15 FROM THE FLOOR: Like happens at the plant
16 sometimes.

17 MS. DUFFY: One thing, we will be
18 respectful of you when you're speaking, so we're going
19 to ask you to be respectful of us when we speak.
20 Thank you.

21 MS. DOUGHERTY: So 15 to 20 minutes is what
22 we have, 20, 15 -- 15. Thank you, Sue. So we have 15
23 minutes, and what we will do is very, yeah, very
24 quickly, if you are a person -- if you guys -- if
25 people have chosen representatives that they want to

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1 speak, we can give people -- six people three minutes.

2 FROM THE FLOOR: Everybody needs to be

3 able --

4 FROM THE FLOOR: Everybody speaks.

5 FROM THE FLOOR: You were going to make

6 people wait two hours. After you sat here for two

7 hours go home? That's outrageous.

8 MS. DOUGHERTY: So it's really useful --

9 MS. DUFFY: That is a choice.

10 FROM THE FLOOR: It's not much of a choice.

11 FROM THE FLOOR: That's not a choice.

12 MS. DUFFY: Do you want to do it? Does

13 anybody want to speak now?

14 MS. DOUGHERTY: Just been given the

15 opportunity.

16 MS. DUFFY: Your opportunity.

17 FROM THE FLOOR: Six people have been given

18 the opportunity.

19 MS. DOUGHERTY: What we'll do is manage the

20 time, and if they don't use the time, we'll ask for

21 more people to come up. Can you get through there?

22 Would you please introduce yourself, and if you have

23 an affiliation --

24 MS. NELSON: I'm a little nervous

25 because I grew up in a shouting family. So when we

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1 all started to shout, I immediately went to about six
2 years old, so I'll be referring to my notes instead of
3 being able to speak directly.

4 My name is Dr. Stephanie Van Zandt Nelson,
5 and my degrees are in clinical psychology. And my
6 father was a member of the Manhattan Project. His
7 name was Oscar W. Gerald, and he was director of
8 exploration and did find uranium, was asked to and did
9 find the uranium for the atomic bomb, and my uncle
10 invented the Spectra for Richard Fitzgerald, and he
11 went on to work the spectrography for the Manhattan
12 Project and also at Oakridge.

13 Now, the secrecy was so great outside of
14 Boston that these two brothers didn't even know they
15 were working for the Manhattan Project for three
16 years, but their wives put it together and tried to
17 mention, and then the secrecy was so great in our
18 family, and my father and uncle were republicans.

19 I know in a town like Berkeley this has great
20 meaning, being democrat or a republican, but they were
21 not only republican. They not only had done the
22 secret work, but also they were born in Canada. They
23 were American, but they were born in Canada
24 practically the turn of the century.

25 So I did not even know of our family's

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1 involvement until the anniversary in 1995, and I went
2 home to help my father, who had Alzheimer's, to help
3 my family, and as we were talking -- was early stages.
4 There was a program on channel nine on the uranium
5 gold rush in the southwest, and I said, "Dad, did you
6 have anything to do" -- he was a geologist. So
7 different things I think I mentioned -- I better hurry
8 up.

9 MS. DUFFY: You have one minute left.

10 MS. NELSON: He said yes, he was the
11 director. Now, one minute. When I was a baby, a June
12 baby, there was no mass radiation everywhere because I
13 was born three weeks before the bomb dropped outside
14 of Los Alamos for the test.

15 Now I'm 54 years, and the radiation is
16 everywhere. This is a tragedy. This is a tragedy,
17 and we are all part of it, and we must work together
18 to find out how this happened and how we can clean up.
19 We cannot be like England and Ireland and all this
20 stuff.

21 Now, I consulted with the doctors in other
22 places -- give me 30 seconds, I can wrap it up -- with
23 the Dalai Lama doctors, and the native American
24 doctors here for thousands of years, they knew in
25 their philosophy and their medicine that these glowing

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1 rocks should stay under the ground.

2 Us Europeans were late. We discovered
3 uranium in Germany in the 1800's. We thought, wow,
4 we're going to go for it. The leukemia that killed
5 Madame Curie was radon radiation related -- two
6 seconds -- and plutonium was later. We didn't know
7 how dangerous it was. The congressional hearing in
8 1945 --

9 FROM THE FLOOR: Let her finish.

10 MS. DUFFY: Time --

11 MS. NELSON: General Rose called my
12 father up the night before and said, "We're going to
13 drop it," and my father said, "You're kidding." And
14 they did. Now, after Hiroshima and Nagasaki,
15 congressional hearings asked everybody, "Is it
16 dangerous? What do you think we should do?"

17 They didn't tell the truth. They said, "Oh,
18 no, it's not dangerous, no. We didn't have any
19 accidents. Nobody's died." It's come out in the
20 public now.

21 What I'm trying to say is now it has been
22 made open record. We tonight and everywhere can make
23 record, open everything that you know about tritium,
24 plutonium, radium. We want to get out. We want the
25 facts out. We don't want to hide it, and we just work

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1 together. Thank you so much for giving me that extra
2 time.

3 MS. DOUGHERTY: Who is the next person?
4 And then I saw a hand here. I am sorry. This lady
5 here, and the lady in the back, and then this lady
6 here. Okay. Great.

7 THE WITNESS: Okay. I'm -- my name is
8 Gordon Wozniak. I'm a long time member of the
9 community of Berkeley, over 30 years. I'm a member of
10 the CEAC, and I'm also a nuclear scientist. I'm the
11 vice chairman of the American Chemical Society.

12 I'm also a lab employee, and I would like to
13 raise a simple issue, and I'm sure this is unpopular
14 with some of the people here, and that is that there
15 is more tritium in the flatlands of Berkeley than
16 there is in Lawrence Berkeley Lab.

17 And I can document this, and it's in this
18 form. It's all around. It's in exit signs. Each of
19 these signs contains about 10 curies of tritium.
20 They're in the schools. They're in the post office.
21 They're in your banks. They're in the Hall of Health.
22 They're all over the city. They're in restaurants.
23 They're in coffee shops.

24 I could pass this around. You can buy these.
25 They're licensed. Just takes a couple hundred

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1 dollars. I'll give you an example. There's a
2 picture.

3 FROM THE FLOOR: Do they have smoke stacks
4 also?

5 MR. WOZNIAK: These are pictures of
6 tritium signs at Willard school. There is more
7 tritium in Chris Worthington's district than there is
8 in the hills.

9 MS. DOUGHERTY: You have one minute.

10 THE WITNESS: This is an issue that may
11 not directly relate to the lab's emissions, but it
12 shows you that radiation is everywhere, and if you're
13 going to deal with -- if you think there's a danger
14 associated with tritium, you're going to have to
15 confront it in this community. It's not just in the
16 hills. It's in the flatlands, and there's more in the
17 flatlands than there is in the hills.

18 MS. DOUGHERTY: Thank you. I'm sorry.
19 This lady was next.

20 MS. KYLE: Could you ask people not to
21 use acronyms?

22 MS. DOUGHERTY: I've just had a question.
23 All you members want to pay attention to this one?
24 Question from Amy. Amy has asked that all of you when
25 you're speaking don't use acronyms. That's a good

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1 point. So we can all try and understand what you're
2 saying.

3 MS. LEVINSON: I'm Joan Levinson, and I'm
4 a journalist. I did a program last year -- last
5 spring on the subject of tritium at the lab because it
6 has been a community issue for many, many years. I
7 wanted to have the representatives of the lab, every
8 side represented. I worked for weeks and weeks with
9 the community liaison person at the lab to get lab
10 officials.

11 I was told each time that the pertinent
12 person was on vacation, and then the next person in
13 command was on vacation. When he came back, he
14 declined to be on the program, and then I was told to
15 try the EPA representative, and then I was told to get
16 somebody from the State Department of Environmental
17 Health to come and be part of the program and on and
18 on like this.

19 And so in the end, there was nobody from the
20 lab. They did not appear at all on the lab -- on the
21 program. Their point of view was not represented. We
22 had three community people who did appear and told you
23 all the things that you're going to hear tonight, and
24 that was fine, but it wasn't what I had in mind, and
25 it wasn't because I didn't try.

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1 What I would like to emphasize from this
2 experience, which is not an unusual experience at all
3 for those of us who are trying to have the betterment
4 of all of us in mind -- that's our goal -- and is that
5 what happened -- what has happened in the past -- and
6 I hope that you facilitators are correct that it's
7 going to be different, but I don't think anybody has
8 great deal of hope on that -- is a problem that is
9 much larger than just the lab. Although, the lab is
10 certainly part of it, and this exit sign thing is a
11 perfect example of it.

12 There's tritium in signs that we're all
13 exposed to. There's more in the flatlands than there
14 is in the lab. Is that okay? Maybe we shouldn't have
15 exit signs that have tritium. That doesn't make any
16 sense to me. Why maximize known danger? Why not
17 minimize it? Don't we all want to live? What is this
18 focused vision that includes peripheral vision when it
19 comes to progress? Something new, a new toy to play
20 with.

21 Now, I know a lot of people in this room are
22 lab employees, and I understand that it's fun.
23 Science technology is fun. It's curious. It's
24 wonderful, and you all have wonderful salaries, and
25 you like your houses, wherever they are, but there's

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1 -- all of us -- you're not excluded from the fallout,
2 literal and figurative, of all the poisons that we as
3 a culture are putting in the atmosphere and in the
4 water and in the earth, and that's what this committee
5 is about, and I hope that the members of the task
6 force will keep this larger vision in mind in
7 everything that comes from this point on. Thank you.

8 MS. SIHVOLA: Hello. My name is Pamela
9 Sihvola. I'm the co-chair of the Committee to
10 Minimize Toxic Waste. I was one of the community
11 members that endured the full 27 months of the Tritium
12 Issues Work Group.

13 I basically first wanted to respond to Gordon
14 because I think his comment was a brilliant example as
15 far as where the problem really is. He talks about
16 exit signs which contain tritium gas. He does not
17 mention that the tritium that's come out of the
18 Tritium Labeling Facility is a form of tritium water
19 vapor as much as 25,000 times more biologically
20 damaging than tritium gas, and tritium gas, as all of
21 you know, hydrogen is very, very light. So it will go
22 immediately up into the stratosphere, and it will not
23 linger in the environment around the stack as does the
24 tritiated water vapor, which is coming out of the
25 tritium stack just a hundred meters from the Lawrence

1 Hall of Science.

2 This is the concern. LBNL does not give the
3 full information. There is continuing effort to
4 mislead the public. If you imagine it, a hundred
5 curies of tritiated water vapor that LBNL is allowed
6 by the Department of Health Services, by the U.S. EPA,
7 to emit every year, two and a half million curies of
8 tritium gas in terms of its biological effectiveness.

9 So there is a lot of information that is not
10 given to the public directly, honestly, and that is
11 the reason why we are here, and that is the reason why
12 I am here because after 27 months, the very crucial
13 information that we had requested, the laboratory
14 refused to give us, asked us to pay \$42,000 for stack,
15 simple stack emission data, historical stack emission
16 data, and now they are catering a dinner, but for the
17 selected members.

18 I also would like to know how much -- and I
19 want to have this on public record, and I would like
20 to find out how much the facilitators are paid and how
21 much each of the city, county, state, and federal
22 regulators and LBNL staff members are being paid by
23 sitting here tonight and why our Freedom of
24 Information Act request now after two years still
25 remains unanswered.

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1 And I hope that the group here will really
2 hold an open mind because there is a huge problem in
3 the city, and the problem has been covered up now for
4 I think almost over 20 years, and this is the very
5 beginning that we might have a chance to really find
6 out what the truth is. Thank you.

7 MS. DOUGHERTY: Thank you. We have this
8 lady. I'm sorry. I don't know your names. This lady
9 and this lady, and we'll be on to the agenda.

10 MS. DENNY: I'd like to give this to
11 the court reporter so you have exact words of the
12 song, and a lot of you have the song. I'm going to
13 sing this. I'm glad that task group rules don't
14 preclude music.

15 Do you have -- do you have a card where
16 you're from? Could I have a copy? If I really want
17 to piss people off, I'll know who to call.

18 Down the way in the old east bay where the
19 sun shines brightly on the Hayward fault, I thought I
20 saw the barrels marked with scary signs and they stuck
21 down in a cement fault.

22 But I'm sad to say they leaked one day, won't
23 be plugged for many a day. My health is down, my
24 three heads turning around, I had to live with tritium
25 trickle-down.

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1 All the experts that work on the hill in the
2 radioactive eucalyptus trees, they say there's nothing
3 wrong with LBNL because nobody makes barrels as nice
4 as these.

5 But I'm sad to say they leaked one day, won't
6 be plugged for many a day. My health is down my three
7 heads turning around, I had to live with tritium
8 trickle-down.

9 But I'm sad to say they leaked one day, won't
10 be plugged for many a day. My health is down, my
11 three heads turning around, I had to live with tritium
12 trickle-down. I had live with tritium trickle-down.

13 All right. I lost your card. Would you put
14 your company that you work for down there? My name is
15 Carol Denny.

16 MS. DOUGHERTY: Next?

17 MS. SUN: My name is Patricia Sun,
18 and I've been lecturing probably about almost 30 years
19 on conflict resolution and problem solving. So this
20 is a wonderful place to be in my own community. I
21 live in the hills. I'm an alumnus of Berkeley, couple
22 of degrees there, and one of them is conservation and
23 natural resources.

24 FROM THE FLOOR: Louder.

25 MS. SUN: One of the things that I'm

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1 concerned about is that we really solve this problem.
2 It's been -- we've been polarized for a long time for
3 a lot of reasons that are very human. First, I do
4 believe, in my own personal experience -- I happened
5 to be in Kiev during Chernobyl, came back radioactive,
6 so did my son, had radioactive stuff, had a bunch
7 sitting in my car, quite a lot, because I couldn't get
8 the DOE or anybody else to take it off my hands.

9 A lot of denial in the media. There's a lot
10 of sort of a core hypocrisy born in the media, money
11 and what did Eisenhower -- the military industrial
12 complex. It's a reality. There's a lot of this, but
13 the real problem is that we're all human. We all have
14 jobs. We want to survive. We want to do well, and we
15 don't want to be poisoned.

16 I believe when it comes to nuclear power and
17 radiation -- I was at the Chernobyl/Three-mile Island
18 Space Bridge with the Soviet Union, and the first
19 question from the public was what do we do with the
20 nuclear radioactive waste? And the people from the
21 Atomic Energy Commission -- at the time different
22 people spoke. The first thing they said from the
23 American side was, "We pay the Chinese to take it."
24 That was the solution. That was the only solution
25 offered.

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1 The rest was a lot of talking around it. It
2 was anxious. It was difficult. It was dah, dah, dah.

3 It was -- the only solution was it's an economic
4 problem. We sell it. We pay the Chinese to take it.
5 I'm sorry. It was to pay the Chinese to take it.

6 Well, I think there is denial around
7 radiation and anything about it. The whole nuclear
8 club when I came back contaminated, and I wanted to
9 get tested -- because you can't get tested anyplace
10 else but the DOE facility, academic or military. You
11 have to have the whole body counters.

12 So what happens is when they didn't even want
13 to see me, then I got on the air, and then they called
14 me back -- I made 25 calls before anybody called me
15 back -- the minute I got on the air, somebody called
16 me back.

17 The guy who was doing the testing didn't want
18 to test me. He said he looked through a book and
19 said, "Well, with that kind of reactor, you should
20 have this and this," and I would, you know, I'm here
21 to be tested because I would like to see what I
22 actually am contaminated with. Thank you.

23 So the real problem for the conflict
24 resolution between us is that there are serious denial
25 in the nuclear community, and there is serious anger

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1 in the community, and sometimes they don't know all
2 the details and the facts and the specifics of what
3 contamination is and what exposure is and what's more
4 serious than what, but they often don't know because
5 there is a closed mouth PR kind of position with the
6 public.

7 And people need to know. It's really time
8 that we all speak to and take the chance that this
9 meeting will be for real and that everybody here will
10 shift on all sides of the issue, that we will really
11 listen, that we will really work to not contribute to
12 the radioactive contamination of our town and our
13 world. Thank you.

14 MS. DOUGHERTY: Thank you very much. Now
15 we're going to move on to the first agenda item. We
16 have -- we'd like to ask Dr. Shank, who is the
17 director of Lawrence -- I did it again, Chuck. I'm
18 sorry -- who is director of Berkeley National
19 Laboratory. He has a few comments for you. I'm
20 saying the wrong sites.

21 MR. SHANK: I want to thank every
22 member of the committee here for your time and your
23 participation in this task force. We have not done a
24 good job at communicating with our public --

25 FROM THE FLOOR: Bad, very bad.

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1 MR. SHANK: -- as is clear from today,
2 I think.

3 FROM THE FLOOR: Terrible. Speak up.

4 MR. SHANK: We have a number of issues
5 on the table. The issue that I would like this task
6 force to focus on is the issue of is there an imminent
7 health danger in this community due to this
8 laboratory? I would like to do that by providing real
9 data, ultimately would like to get to a sampling
10 program, go out. We look into the community, take
11 real measurements, bringing these back here, and we
12 would like to communicate them to you, and we would
13 like you to be informed citizens.

14 FROM THE FLOOR: Would that include
15 treatment studies?

16 MS. DUFFY: It's not okay to do that.

17 MS. DOUGHERTY: It's not okay when people
18 have been --

19 MS. DUFFY: We don't expect to do
20 any --

21 FROM THE FLOOR: I'm not going to let him
22 mislead them as to what to --

23 MS. DUFFY: I said --

24 MS. DOUGHERTY: It's disrespectful.

25 FROM THE FLOOR: I heard what you said, but

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1 I haven't had my say yet.

2 MR. SHANK: I live up in the hills just
3 above the laboratory, and it really became apparent to
4 me that there is a real need, real importance in
5 resolving the issue from a really personal experience.

6 A person was going to buy a house next to
7 mine, and they were quite concerned about buying the
8 house because they heard about titanium poisoning in
9 the environment, and the reason they bought the house
10 was that the realtor said, "The lab director lives
11 next door, and would he live there if there was
12 titanium poisoning?"

13 One of the things that I did immediately upon
14 having these people move in was to go and talk to them
15 about this issue, and I realized what a large hill we
16 have to climb to be able to really communicate about
17 this issue.

18 Now, I have asked my top scientist in this
19 area to be at the table to discuss this issue, to be
20 the consultant for you during this time we hope to
21 bring things before you. We hope this to be a
22 dialogue. We hope to get information from you. We
23 hope that you will hear information from us.

24 We want to cooperate with all city bodies,
25 all regulatory bodies, all the people who have a

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1 stake. We appreciate very much your being here, and I
2 wanted to thank David McGraw for doing this with the
3 laboratory, and I look forward to a result that's very
4 different than what we've had in the past. This is an
5 experiment for us. We really would like to do it.

6 FROM THE FLOOR: Like radiating us.

7 MR. SHANK: A full range of issues, and
8 this is really the first time that we've actually
9 tried this, and we're looking forward to working with
10 you in the community. Thank you very much.

11 MS. DOUGHERTY: Okay.

12 MS. DUFFY: We're moving fast,
13 hopefully trying to catch up. We started a little
14 late.

15 MS. DOUGHERTY: Do introductions around the
16 table.

17 MS. BERNARDI: I would like -- a question
18 I would like ask you.

19 MS. DUFFY: Not right now. We've got
20 to move along.

21 MS. DOUGHERTY: Introduce the task force
22 members, please.

23 FROM THE FLOOR: Let her ask --

24 MS. DOUGHERTY: And we please start with --
25 like to introduce yourselves.

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1 MS. DUFFY: The name Sheryllyn rhymes with
2 Marilyn, so you all know.

3 MS. DOUGHERTY: So we would like to just
4 have you task force members introduce yourselves
5 briefly. We're behind on the agenda, and we are
6 wanting to catch up if we can a couple of areas that
7 -- you've got your agendas in front of you. So if
8 anybody wants to start, go around just say your name
9 and what group you represent, and if you would also
10 tell us what you as a task force member hope to get
11 out of the process.

12 FROM THE FLOOR: How much you're getting
13 paid.

14 FROM THE FLOOR: How much money is involved.

15 MS. DOUGHERTY: Anybody who would like to
16 start. Amy?

17 MS. KYLE: My name is Amy Kyle, and
18 I'm here because the School of Public Health at U.C.
19 Berkeley was asked to send a representative. I am in
20 the field of environmental health science.

21 FROM THE FLOOR: Louder.

22 MS. KYLE: I can stand up, but I can't
23 talk any louder. I'm sorry. My degree is in
24 environmental health sciences, and I'm in that
25 program. I don't have any history with this issue

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1 myself personally. So, you know, I guess I'll just
2 tell you that I don't know about this story of the 27
3 months or the water in the air and all of that stuff.
4 I haven't been involved in this.

5 In some sense I'm not a stakeholder the way
6 some people who live here are, but I'm here because
7 the school was asked to send a representative. I do
8 care about fair policy, good process. Perhaps I'll
9 have some technical expertise to offer. I do think
10 it's important if we move forward, you know, as we
11 move forward that we do this in a way that meets these
12 needs, and my sense is we're going to need to talk
13 about that.

14 MS. DOUGHERTY: Yeah, we will.

15 MS. KYLE: So that's all we have to
16 say. I wish everybody -- everyone could present their
17 information in song. I liked that.

18 MR. MCGRAW: My name is David McGraw,
19 and I'm the Environmental Health and Safety Director
20 at the Lawrence Berkeley Laboratory. And one
21 gentleman asked me how much I'm getting paid to do
22 this, and I'm tempted to say after the raucous
23 opening, not nearly enough, but, in fact, my salary
24 doesn't change one iota whether I'm here or not.

25 So I'm here to reach out to the community,

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1 and I'm here to represent the laboratory, and I hope
2 that we come to some sort of common ground where we
3 both get a little bit better understanding of each
4 other, and maybe we can both get a little movement on
5 each side and some shared meaning out of the process.

6 MS. DOUGHERTY: Paul?

7 MR. LAVELY: I'm Paul Lavelly. I'm the
8 director of the Office of Radiation for the
9 University. A lot of people don't realize that LBL
10 and the University of California share a common fence
11 line, but we're actually managed by different
12 organizations, and I represent the campus, and I also
13 have responsibility for the Lawrence Hall of Science
14 and the people there as dealing with radiation. And I
15 also -- I'm not compensated for being here. I'm here
16 because I was asked to come.

17 FROM THE FLOOR: I'm sorry. I don't like
18 people interrupting, but could both of you give us
19 your Ph.D.'s?

20 MR. LAVELY: I'll give my
21 qualifications. It's not a Ph.D. I have a Master's
22 degree in science in biochemistry and physiology, and
23 I have a Master's degree from Cal Berkeley in public
24 health.

25 MS. DOUGHERTY: It's real important that we

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1 not engage in defensive behavior. In order for us to
2 move forward, I'd like the task force not to be

3 interrupted. They can say what they like about
4 themselves. Please, you don't have to be responding.
5 It will take up --

6 MR. LVELY: I have a Bachelor's of
7 science in environmental health from Purdue, Master's
8 in environmental (unintelligible) from the University
9 of San Francisco, and I'm a fourth year law student,
10 and I've been doing this kind of work for 30 years.

11 MS. DOUGHERTY: If you share whatever you
12 would like to share, task members, it's not required
13 that you tell us anything about your personal history
14 that you don't want to talk about.

15 MR. MATTHEWS: Me name is Keith Matthews.
16 I'm representing the City of Oakland Office of
17 Emergency Services, and I have background in chemistry
18 and health physics, and I'm here to listen and
19 hopefully contribute to the process. So there you go.

20 MR. RATHBONE: I'm Steve Rathbone. I'm
21 with the district office with Berkeley Unified School
22 District, and I have 9800 of your kids under my charge
23 and under safety, and that's why I'm here. I do have
24 some experience with radiologists. I was radiological
25 defense officer for the County of Riverside for 10

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1 years prior to coming up here, and as I said, my
2 charge are your little ones, and that's why I'm here.
3 I have no preconceived notions. I have no idea what
4 happened 27 months, and if you want to E-mail me, tell
5 me what was -- I'll give you my E-mail address, but
6 other than that, I'm coming in here wide eyed in
7 defense of your kids.

8 MR. BAILEY: My name is Ed Bailey. I'm
9 California Department of Health Services, Radiological
10 Health Branch, and I have a Bachelor's and Master's
11 degrees in engineering, Professional Registered
12 Engineer, Certified Health Physicist.

13 We in the radiologic health branch are
14 responsible for regulating the use of radioactive
15 materials in the State of California, but that
16 authority does not extend, of course, to federal
17 facilities, and we're here -- department is being
18 recommended here to see that the environmental
19 sampling plan and the data that is presented is
20 evaluated fairly and honestly.

21 FROM THE FLOOR: Do you have any
22 jurisdiction over LBNL?

23 MS. DOUGHERTY: I'm sorry, Mr. Bailey.

24 MR. BAILEY: I just said we have no
25 jurisdiction over federal facilities.

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1 MS. DOUGHERTY: Thank you.

2 MR. AL-HADITHY: I'm Nabil Al-Hadithy. I'm
3 with the City of Berkeley. I represent the toxics
4 management division, and I am here primarily to
5 observe and report back to the commission and city
6 council.

7 My primary interest is to make sure that the
8 city's contractor, whose name I can't pronounce, of
9 Germany is offered every opportunity to represent the
10 city scientifically. I have no great experience in
11 radiological materials or attitudes. I'm a scientist
12 by training.

13 MR. BRIGHT: My name is Laurie bright, a
14 lot of you that know me. I've been working on toxics
15 issues mainly in West Berkeley for about last 11 years
16 and helped Nabil get his city act together as far as
17 having a commission, having an environmental
18 commission having a toxics program in Berkeley. And
19 we worked very hard to get that done.

20 I was asked to be here by our director of
21 Citizens Opposed to Polluted Environment, which we
22 founded ten years ago. We primarily want to be in
23 this process to have enough of a community input so
24 that it isn't just the scientists. I don't have a
25 Ph.D. in anything. Never really cared to have one, to

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1 tell you the truth.

2 I have a B.A. in economics, which doesn't
3 help you a hell of a lot here, but the point is that
4 if this is going to be a fair process, and I'm
5 withholding judgment and have told them that I'm
6 withholding judgment on that for at least a couple of
7 meetings, to see if, one, the public can be heard, and
8 I think that we have tonight made some progress
9 towards that.

10 And, second, that the public can be
11 represented at the table, and I think that's important
12 even though the process may fail. I don't want to be
13 the one that makes it fail without giving it a shot,
14 and I'm going to give it a shot, and if it works out,
15 great. If it doesn't, then we'll try something else
16 next time. So that's all I have to say. Thank you.

17 MS. DUFFY: Sue.

18 MS. DAY: I'm Sue Markland Day. I
19 live above the tritium facility up there above the
20 museum. I have -- I work for Bay Area Bioscience
21 Center. That's the group that works with people to
22 understand what the life sciences can do for both
23 research and in the health care area.

24 I have a Bachelor's degree in biology. I've
25 spent half my life with medical work and the other

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1 half with being environmentally active and the first
2 10 years out of school doing exactly what many of you
3 are doing here, and I thoroughly understand the
4 interplay between these different groups. So thank
5 you.

6 MS. DOUGHERTY: Miriam.

7 MS. NG: My name is Miriam Ng, and
8 I, too, can be passionate. I represent the Berkeley
9 Association of Realtors, and like Chuck said, people
10 who are buying houses are very concerned as to the
11 status of this tritium, which I know nothing about,
12 and so I would very much like to find out what's going
13 on and whether we need to clean it up, and so on and
14 so forth. Thank you.

15 MS. FISHER: I'm Evelyn Fisher, and I
16 represent the Campus Parnassus Neighborhood
17 Associates. We are people whose properties abut LBL's
18 property, and by background, I'm a sociologist of
19 scientific knowledge and knowledge use, and I'm very
20 much interested in hearing everybody's views about
21 data interpretation, knowledge, and the truth tests
22 apply.

23 MS. PACKARD: I'm Fran Packard. I'm here
24 representing the League of Women Voters of Berkeley,
25 and I was aware that this was an issue, but I don't

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1 know any of the details of what's going on in the
2 past, and I look forward to knowing more about the
3 whole topic.

4 MR. WILLIAMS: I'm Carroll Williams. I was
5 asked to represent the Panoramic Hill Neighborhood
6 Association. I'm a professor at College of National
7 Resources. My particular interest there is a topic
8 called forest health, encompassing fires and insects
9 and pathogens and human activities on forest structure
10 and composition, forest health in general.

11 I have a Ph.D. in forestry and a minor in
12 statistics. I don't know very much about tritium. I
13 hope to learn a lot. I hope to be effective in what I
14 am applying or using what I learn. I hope I have an
15 open mind. I won't allow my conscience to be dictated
16 to, and I hope that we can all come up with something
17 that is very useful out of this whole process.

18 If it doesn't work out, I have a lot of
19 things to do. I have classes to teach, and if this
20 thing doesn't work out, I won't be here long. I think
21 that's okay for now.

22 MS. BERNARDI: I'm Gene Bernardi, co-chair
23 to the Committee to Minimize Toxic Waste, and the
24 committee has been working for five years to try to
25 reduce the radioactive emissions from the Lawrence

1 Berkeley National Laboratory. The committee was
2 actually formed as a subcommittee of the Panoramic
3 Hill Association, which Carroll Williams is now
4 representing. And as a matter of fact, Frederica
5 Drotos, who was the first chairman of the Committee to
6 Minimize Toxic Waste, wrote the final draft of the
7 resolution that the Berkeley City Council passed in
8 1996 calling for permanent closure of the National
9 Tritium Labeling Facility, and they again re-affirmed
10 that in September of 1998.

11 If it wasn't for the fact -- if it wasn't for
12 the work of the Committee to Minimize Toxic Waste, we
13 wouldn't be here today. The entire Bay Area would
14 probably be lulled into a state of total denial. In
15 fact, I think the re-lulling is now again in process.

16 But the radioactive releases continue. We
17 have emphasized tritium because the emissions stack
18 for the tritium facility is only 100 meters from the
19 Lawrence Hall of Science where tens of thousands of
20 children, many pregnant women, visit every year.

21 Many young women in their reproductive years,
22 we are told by Mr. Lavelly, are also employees at the
23 Lawrence Hall of Science. The lab will tell you don't
24 worry. The tritium emissions are well below the
25 allowable standard, but that standard is for an adult

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1 man, not an unborn fetus, not a child, not a woman,
2 let alone a pregnant one.

3 Tritiated water -- and the lab converts
4 tritiated gas into tritiated water -- tritiated water
5 in the pregnant female crosses the placenta and
6 affects the development of ova, the eggs in the female
7 fetus. This may lead to genetic mutations, in other
8 words, birth defects, including mental retardation in
9 future generations. Tritium is also associated with
10 various cancers such as leukemia and with low sperm
11 count.

12 What would you think and how would you feel
13 if you knew you were living, working, or jogging, or
14 your children were visiting a science museum like the
15 Lawrence Hall of Science next to a stack that emitted
16 an average of 5,375,000 curies of tritium gas per year
17 into the atmosphere from 1982 to 1995?

18 I use that figure not because that number of
19 curies were released, but because that amount of
20 tritium gas is biologically effective. That means
21 biologically harmful.

22 Equivalent of 215 curies of tritiated water
23 vapor, which was the average release from the National
24 Tritium Labeling Facility stack from 1982 to 1995.
25 Tritiated water vapor is 25,000 times more harmful --

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1 they call it biologically effective -- than tritium
2 gas.

3 The lab says it has reduced its tritium
4 emissions and redistributes it, will now release just
5 100 curies per year. That is the biologically
6 effective equivalent of 2,500,000 curies of tritium
7 gas per year. On just one day, July 24th, 1998, there
8 was an accidental release of 35 curies of tritiated
9 water vapor from the National Tritium Labeling
10 Facility. That is the biologically effective
11 equivalent of 875,000 curies of tritium gas, far
12 greater than the infamous inadvertent release of
13 300,000 curies of tritium gas at the Lawrence
14 Livermore Lab on August 6th, 1970, which happens to be
15 -- probably there were a lot of demonstrators there
16 because that would be Hiroshima day, I think.

17 I just wonder how many have seen Dr. John
18 Gofman's new book called Radiation From medical
19 Procedures in the Pathogenesis of Cancer and Ischemic
20 Heart Disease. That means coronary heart damage.
21 Dr. John Gofman is a noted University of California
22 Berkeley expert in the health effects of radiation.
23 He was a group leader for the Manhattan Plutonium
24 Projects here and director of the Lawrence Livermore
25 Laboratory's biomedical research division. I'd like

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1 to read to you from a --

2 MS. DOUGHERTY: Gene --

3 MS. BERNARDI: -- news release. I just
4 have a couple --

5 MS. DOUGHERTY: Almost done.

6 FROM THE FLOOR: Let her finish.

7 MS. BERNARDI: This is a news release
8 issued November 16th, 1999 by the University of
9 California Berkeley. John Gofman, professor emeritus,
10 molecular cell biology in U.C. Berkeley conducted an
11 intensive analysis comparing death rates with the
12 average number of physicians per 100,000 people. The
13 analysis turned up a major surprise. While death
14 rates from almost all causes went down with increasing
15 physician density, death rates rose with physician
16 density in two categories, cancer and coronary heart
17 disease.

18 Gofman concluded that the cause is medical
19 X-rays, including fluoroscopy and computerized
20 tomography, or CT scans. You may wonder why I'm
21 talking about X-rays. The reason is because Tori
22 Stromm, hired by the City of Berkeley to review the
23 lab's environmental health risk assessment for tritium
24 releases at the National Tritium Labeling Facility
25 indicated that the Berkeley Lab was down playing the

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1 danger of tritium.

2 Tori Stromm stated, quote, "The low energy
3 beta ray emitted tritium is more effective in
4 producing biological damage than X-rays." Dr. Gofman
5 is telling us X-rays are producing all sorts of
6 biological damage, not only cancer, but coronary heart
7 disease, and yet tritium, according to Stromm, is even
8 more potent in producing biological damage than
9 X-rays.

10 We would strongly like to suggest that this
11 task force should seriously consider joining with the
12 City of Berkeley by passing a resolution calling for
13 the permanent closure of the National Tritium Labeling
14 Facility in its present location next to the Lawrence
15 Hall of Science and in a densely populated urban area.
16 Thank you.

17 MR. NOLAN: Good evening. My name is
18 Dick Nolan. I'm representing the United States
19 Department of Energy. U.S. Department of Energy has a
20 contract with the University of California for
21 operation of the Berkeley laboratory. My background
22 is in engineering and in management, and my hope for
23 this effort is that we increase data flow,
24 understanding, and hopefully get to a resolution of
25 this issue.

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1 FROM THE FLOOR: You can close it down
2 tomorrow.

3 MS. DOUGHERTY: Thank you so much

4 MS. WOOD: I have to introduce myself.
5 I didn't sit at the table because there was a bunch of
6 traffic over there.

7 MS. DOUGHERTY: Do you want to come up
8 here?

9 MS. WOOD: My name is Periann Wood,
10 and I work for the U.S. EPA in the Office of
11 Radiation, and my background, which I know most of you
12 know, I have a Ph.D. in developmental biology, and
13 I've been with the EPA for 12 years, and what I would
14 like to see us do in this task force is to get the
15 sampling out there so we can find out if there's any
16 risk to the public outside.

17 FROM THE FLOOR: With the --

18 MS. DUFFY: We're going to move right
19 on to a quick housekeeping issue that we always bring
20 up. Bathroom, better known as biobreaks, you don't
21 need a hall pass. Just get up and go. It's down the
22 hall to the right, and, you know, to talk about the
23 way we run meetings a little bit, Sheryllyn and I do
24 have a dialogue style, which we will discuss in a
25 minute, but also our style is to co-facilitate.

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1 So you'll notice us up here whispering,
2 talking, writing notes, running into each other, and
3 it's the way we keep the meeting moving and the way we
4 stay on top of things, and we believe two people can
5 stay on top of things better. So be patient tonight.

6 This is an introductory meeting, not moving
7 quite as fast as we had hoped, but a lot of it's going
8 to be talking about what we're going to be doing at
9 these meetings from now on. So that's what we're
10 going to do right now. The format weekly will be a
11 two-hour meeting.

12 MS. DOUGHERTY: Not weekly

13 MS. DUFFY: Did you know you signed up
14 for weekly? You'll be here next week, Wednesday, all
15 of you, right? Bring food. But it will be a two-hour
16 meeting, and it will be conducted in a way that first
17 usually will have speakers on related areas, and then
18 we'll move into a discussion period, which is based on
19 a dialogue model, which you can talk about, Sheryllyn.
20 Why don't you go ahead.

21 MS. DOUGHERTY: We want to talk just
22 briefly -- we're going to have to grab back time. You
23 guys signed up to be here until 8:30. We're going to
24 do our best, even though we've been delayed tonight,
25 to move the process along.

00054

1 We had quite a delay in the beginning making
2 some decisions, so we cut some things a little
3 shorter. What are we engaging in in this meeting?
4 What is the process talking about or referring to as a
5 dialogue style?

6 What you'll see here is you see a
7 representative body. You guys, each of you,
8 represents an entity that you come here and sit at the
9 table and represent. So this is a representative,
10 participant representative type of meeting, and so
11 what each of you does is brings with you all of your
12 knowledge and expertise and interests representing not
13 just you, but hopefully the group that you're a part
14 of, and brings it to the table so all the other
15 members can learn, and you guys can learn from each
16 other.

17 This effort is part of Berkeley Lab's
18 attempts, new attempts, as Chuck said, to do a better
19 job at dealing with community issues and to create
20 some relationships with you guys, and they can't do
21 that without a lot of -- without seeing you guys
22 individually and hearing your issues and getting
23 what's up.

24 So the attempt to use the style in the
25 meetings is use the style we call dialogue, for lack

00055

1 of a better term. And the history of dialogue style
2 meetings really has been in Track 2 dialogue work in
3 United States state Department and in U.S. AID work,
4 mostly for peace work or work to end conflicts in all
5 kinds of places, including the United States, and it's
6 been very effective in helping people who have wildly
7 divergent views come to a place where they can make a
8 difference and get heard.

9 So one of the -- that's the basic tenets that
10 we're going to hold you members to is we're going to
11 ask you to really hang on with the ground rules that
12 we have up here, which are really simple. They're not
13 hard. They're something you've all done a million
14 times before. We're going to ask you to be
15 respectful. One person speaks at a time. We're going
16 to ask that people don't interrupt each other.

17 We're going to ask that you represent your
18 own view and not somebody's else's at the table. They
19 talk for themselves just fine. We're going to -- and
20 that in context with the media, speak for yourself,
21 please. The media is welcome to be here, but please
22 speak for yourself. Speak honestly about your
23 concerns. We see your passion, and we honor that.
24 That's great. It's great people bringing passion to
25 this process. It's very useful.

1 And what we seek is that for every member at
2 this table, that each of you will get time. Now, that
3 means some of you may get shut down. Some of you are
4 more vocal than others. Some of you have a very long
5 history with the tritium issue, and our understanding
6 is it's not always been pleasant, to say the most
7 euphemistic thing we can say there.

8 So many of you have had lousy experiences in
9 the past, and we get that. And we would like very
10 much for this not to be as lousy an experience, and so
11 for that to happen, we need to let everybody at the
12 table have a chance to talk, and so we will -- anybody
13 that's interrupting or being rude we're going to come
14 down on because we need respect. You all have an
15 opinion, and it's important that you get --

16 MS. DUFFY: I have an opinion. I think
17 part of that is nobody gets to dominate because
18 there's not time to do that, and that just because you
19 don't have the expertise and the Ph.D., if you have
20 different knowledge, it doesn't matter. Beginner's
21 mind is some of the best. Asking the dumbest
22 questions often gets very sophisticated responses.

23 MS. DOUGHERTY: That's right.

24 MS. DUFFY: So I would hope that people
25 have equal respect, that we all have patience and care

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1 about our community and each other, and also that this
2 process, what we call process, probably not in the
3 most -- what we call probably more like group therapy
4 is that it's knowing this group and stimulating each
5 other's ideas that makes this process work that you
6 task members, people in the public forum, you bring up
7 ideas during the discussion period, I mean the public
8 forum that people listen, and you can bring it up and
9 talk about it. Ask dumb questions. It matters.

10 MS. DOUGHERTY: It does matter, absolutely,
11 and in terms of this is simple stuff, but we really we
12 would suggest that we have a couple simple bottom
13 lines is one of them is you guys can't make personal
14 attacks on each other. We hear how dreadful things
15 have been in the past. We get that, and we know
16 people have a lot of carryover feeling, and it's not
17 going to be okay to do personal attack. We want
18 people to hear each other.

19 We're going to ask you as members -- and I
20 don't think you can all see this, but to invite
21 dialogue, we're going to ask that you do -- that the
22 first thing you have to do is something that Laurie
23 said in his introduction, which was I heard you say
24 something like you're trying to suspend judgment, and
25 that's my word, but you're trying to give the thing a

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1 chance.

2 Suspend judgment is what we're going to ask
3 you to do for a couple of meetings. We can't get
4 meeting stuff done the first meeting because we have
5 to allow a venting process, and people are angry, and
6 they're frustrated, and that's clear. And so people
7 feel not heard. We got that.

8 So we ask you, you members, please suspend
9 judgment. Give this process a chance to take root.
10 It can work; I assure you. Be open-minded. You know,
11 sometimes some things you're going to feel -- you're
12 going to want to eye roll. Try to avoid the eye
13 rolling at each other, if you can. It's not very
14 useful.

15 Listen with skill and care, and that's really
16 -- I want to encourage -- it really is about
17 listening, and that means not thinking about what
18 you're going to say next when somebody else is
19 talking, but really being present in whatever they're
20 saying and listen to them.

21 MS. DUFFY: Goes along with that is
22 most people want to advocate for their points as
23 opposed to listening to people. We're really asking
24 for communication here in a way that most humans do
25 not ever don't do, but that we believe creates better

1 thinking and a better exchange and moves people
2 because usually we don't move each other because we're
3 just (gesturing). The song was good, actually.

4 MS. DOUGHERTY: We've never heard that
5 expressed in song. Facilitators are available to
6 receive comments directly and confidentially. Patty
7 and I have our names up here. That's the number you
8 can call, (510) 339-2900, if you have comments for us
9 about the meeting, and the lab has put up a website.
10 These notes will be up in a period of time of 10 days.
11 They'll be put up verbatim. So you can look at these
12 and comment on those as well.

13 MS. DUFFY: Here's the -- well, just
14 the court reporter will prepare the verbatim, as we
15 said before, that we'll do a brief summary, usually
16 within five days, what we think are the major points,
17 that there will be a site where you can express your
18 opinion and access your -- this information on the
19 website, and other people can access the public
20 opinion it has made about the meeting. It's on the
21 website, and all public comments will also be recorded
22 in the court reporter's record.

23 MS. DOUGHERTY: Couple of other comments on
24 why this system -- why do we use this system. What's
25 up with it. Some elephants are in the room. I want

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1 to say one of them is there is unequal power, and
2 certainly the public has expressed their frustration,
3 hard to sit and listen to the process like this.

4 There's also unequal power in the room.
5 There are people who represent huge institutions with
6 lots of bucks. There are people here who don't. All
7 right. So that's unequal power. The opportunity in a
8 participant representative situation is to equalize
9 that, not -- we're not saying it's equal. We haven't
10 fixed it. We're saying it ramps the power inequity
11 down a little bit. It's not as overt.

12 Still, we get that if David McGraw speaks on
13 behalf of the lab, it's a different thing. No one's
14 denying that. But we'd like to give David as much of
15 an opportunity to be a member of the task force as
16 possible and not turn him into the answer man. So if
17 we could have the --

18 MS. DUFFY: He doesn't know that much
19 anyhow.

20 MS. DOUGHERTY: He could be wrong. Okay.
21 Why else use the style? Because it allows for a broad
22 range of feedback. A lot of you guys haven't been
23 heard in the past. Went out to do interviews, the
24 folks -- people said, "I've never had a chance to say
25 this to the lab," and maybe they haven't made

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1 themselves very accessible. Looks like that's true,
2 too.

3 Dialogue honors your individual perspectives,
4 says that whatever you think is okay and needs to be
5 heard by this group because it probably represents
6 what a whole bunch of other people think and feel.
7 Okay.

8 And we have a term we're going to use a lot.
9 We're going to try to define a bunch of terms. The
10 term is "shared meaning." So what are we after here?
11 What are we after here in this effort? We, as
12 facilitators, are after you guys getting some shared
13 meaning, after you guys creating some real
14 conversation and talking to one another and a mutual
15 exchange of information. That's what we're after.

16 MS. DUFFY: This isn't just about
17 definitions. It's about getting what other people are
18 really saying. It's not just that we all have the
19 same definition of risk. It's getting that some
20 people believe in zero risk, and some people believe
21 that some risk is worth what it creates, those kinds
22 of meanings, what that means to everyone in this task
23 force.

24 MS. DOUGHERTY: And all those values,
25 people get to carry their values, and you don't have

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1 to change to be like somebody else. Your values are
2 your own, and we honor and respect all those values,
3 and that's why we have to be respectful when we're
4 talking. Because I don't agree with your perspective
5 doesn't mean it's not valid.

6 MS. DUFFY: That's our value.

7 MS. DOUGHERTY: Our value is to try and --
8 it's to try to facilitate relationships between you
9 guys and the lab, you guys, participant
10 representatives. So for most of you who are sitting
11 at the table, please make sure you go back and talk to
12 your stakeholders about what's up. Make sure you're
13 getting what needs to be said in this room at the
14 table.

15 MS. DUFFY: One other thing about -- we
16 know there's a lot of issues around, and we aren't
17 going to ignore them totally, but we are trying to
18 focus on the tritium sampling plan and issues related
19 to that area.

20 MS. DOUGHERTY: Now, we have a half an
21 hour, and we are going to introduce David McGraw. I
22 believe he is going -- we'd like David to talk --
23 however you can smoosh it together we would appreciate
24 it. Thanks David.

25 MR. MCGRAW: What I'll do is I'll tell

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1 you what I was going to talk about and ask you whether
2 you would like me to eliminate one part of it because
3 you already know all about that, or you just like me
4 to edit it equally all the way through.

5 So let me get organized here first, and then
6 I'll use you, Dick, all right, and then tell you what
7 I was going to talk about, and we can take out a
8 section, and we can shorten them all, whatever you
9 like.

10 The three issues I wanted to talk to you
11 about, because I didn't have a sense for what everyone
12 -- where everyone was left at, is I wanted to tell you
13 a little bit about the Berkeley Lab, why a national
14 lab. Why are we here? What's our history in the
15 community? We can take that section out if everybody
16 understands that.

17 I wanted to touch a little bit on tritium,
18 and, Gary, do you want to sit in my spot for a little
19 while? And then I wanted to close with a little bit
20 of perspective, maybe close on some of the comments
21 Dr. Shank -- mirror some of the comments Dr. Shank
22 made on what the laboratory hopes to get out of this
23 process.

24 So I sense that a lot of people in the public
25 know a lot about the lab. I'm not sure what the task

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1 force -- would it be helpful for me to say a little
2 bit about what a national lab is about? Okay. I
3 will, but I will edit is significantly.

4 So the first thing, I think, to recognize
5 about the lab is that the lab is a member of the
6 community, and we are -- we may not have acted like
7 it, but we are acutely aware that we're a member of
8 this community. We're located in the middle of an
9 urban area. We're in a beautiful environment, and
10 it's obvious we're a member of this community. We
11 have a very, very long history here, and I think that
12 might have contributed to why we take some of these
13 things for granted that, gee, we must be appreciated
14 in the community. Look how long we've been here.

15 Laboratory was founded in 1931 by Ernest
16 Lawrence. It moved up to its present site in 1940.
17 So we've kind of assumed we're welcome here

18 MS. DUFFY: Bad idea.

19 MS. DOUGHERTY: Bad assumption.

20 MR. MCGRAW: Bad assumption. Just be
21 patient a little bit, patient with me, because I am
22 flipping through and eliminating some things. One of
23 the things that I appreciated as soon as I got to the
24 lab, and I've been at the lab nine years, and I have
25 worked a lot in this area in the private sector, is

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1 that the laboratory -- immediately apparent to me, the
2 laboratory does pay an awful lot of attention to
3 safety and health issues of the environment.

4 One of the things, pieces of guidance
5 Dr. Shank gives to all of his scientists is that his
6 expectation now as strong as he emphasizes that he's
7 not the first director that's emphasizing that the
8 whole field of health physics and that much of it's
9 beginning at this laboratory, the entire field of
10 health physics, if you read the histories, it's really
11 a history of the Berkeley Laboratory.

12 This is ironic we should be talking about
13 this today because only Friday Dr. Shank is going to
14 have every laboratory director, which are the folks at
15 the lab that report to him, giving a status report in
16 how they've performed in environmental health and
17 safety.

18 So he has very strong expectation in that
19 area. Now, we may not have met your expectations, but
20 it clearly has those expectations of the laboratory
21 management.

22 FROM THE FLOOR: Right.

23 MR. MCGRAW: So what does make a
24 national laboratory? What was the genius of
25 Lawrence's concept that why can't we just do this kind

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1 of thing somewhere at a university? And the genius of
2 Lawrence's concept was he brought multi-disciplinary
3 teams together at a large physical facility.

4 It was very different than bench-top science
5 where you had the individual researcher in an academic
6 setting. He brought engineers together. He brought
7 scientists together. He brought technicians together.
8 He brought folks like me that are trained in science
9 but don't do bench science. They do environmental
10 health and safety together in big teams to work at
11 large physical facilities.

12 One of the nice traditions we have at the
13 laboratory is we don't use any titles. It's not
14 "Dr." this or "Professor" this. It's David. It's
15 Chuck. It's Klaus. It's Robin. And that kind of
16 team work is a long tradition at the laboratory. It's
17 multi-disciplinary teams using complex facilities,
18 making those facilities available to use, the entire
19 nation and the world, and being able to make capital
20 investments in that facility that you couldn't make in
21 a university. So that's what, very, very briefly,
22 makes a national laboratory a little bit different.

23 Some of the user facilities we do have that
24 bring people from all over the world I've got up in --
25 oops, sabotage.

00067

1 MS. DOUGHERTY: What did you guys do?

2 MR. MCGRAW: National American Research
3 Scientific Computer Center got the largest
4 unclassified computer, and it's very, very important
5 to emphasize that our laboratory is a completely open
6 laboratory. We do no classified research there.

7 The super computer there is one of the
8 fastest computers in the world as well. It can do the
9 sort of arithmetic calculations that you have to do to
10 get -- to solve scientific problems extremely fast.
11 So I don't know if there are any computer types in the
12 room here, but I was going to tell you how fast that
13 is. Maybe some of you can appreciate how fast that
14 is. Teraflop is one trillion floating surface
15 operations, and what that means is how fast you're
16 multiplying A times B to do those as arithmetic
17 calculations. That's what national user facilities
18 are about.

19 We have a very diverse community up there,
20 and I'm going to show you what why that's important in
21 a second. It's not just a bunch of scientists. It is
22 multi-disciplinary teams, but one thing I want you to
23 pick up in this slide is that we have a whole bunch of
24 students. One of the things we take very seriously at
25 the lab is training the next generation of students,

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1 and it's just not grad students and post docs. It's
2 undergraduate. It's promising high school students.
3 So training that next generation of scientists is
4 very, very important community responsibility at the
5 Berkeley Lab.

6 Those are the kinds of things in the
7 community that we've focused on, and maybe that's
8 another reason we just sort of have not gotten it in
9 other areas is we've paid a lot of attention to
10 community, but we have focused it in different areas.

11 So training that next generation of promising
12 high school students and promising graduate students,
13 very, very important function. When students can't
14 come to us, we reach out to your community, and many
15 of your children have been involved in these programs.

16 We run the center for science and engineering
17 education where we try to develop teaching tools for
18 high school teachers, junior high school teachers.
19 This -- these slides really did get messed up.

20 MS. DUFFY: Radioactive fingerprints
21 you have there.

22 MS. DOUGHERTY: It's your fault, David.

23 MR. MCGRAW: I'll just focus -- this
24 frog is a virtual frog. You can go into the web at
25 the laboratory, and a lot of students that are

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1 interested in science -- and even if you're not a
2 physicist in the making, but you have to take biology
3 to get out of high school. You hate doing
4 dissections. You can go on the web and actually do an
5 electronic dissection.

6 So we're reaching out to the community as
7 well. This wall chart, which you can't see, that's
8 one of the lab scientists working with a high school
9 teacher, and these wall charts of the nuclear
10 structure in fundamental particles are in junior high
11 schools and high schools all over the country.

12 So a little bit about a national lab, and
13 another reason that we feel strongly bonded to the
14 community is that many of the people that work at the
15 laboratory, this is where they live. This is our
16 community. I heard somebody here say, "I'm a member
17 of the community, too." Well, so are those of us that
18 work at the lab. So please don't dismiss us quite --

19 FROM THE FLOOR: You get paid.

20 MR. MCGRAW: We live with you as well,
21 and we contribute to this community. It's a
22 meaningful community to us. It's our community. We
23 don't want to trash this community. That might just
24 give you a little bit of appreciation for where our
25 employees come from, and you can see the majority of

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1 the employees at the lab come from Contra Costa (sic).

2 There is Alameda, and that we do contribute
3 and develop investments in this community. We feel
4 we're an important citizen of the community. We feel
5 we've reached out to the community. We feel and are
6 acknowledging to you tonight we have to do that on a
7 broader scale.

8 So that's the quick version of the background
9 at the lab. I'm going to talk a little about tritium
10 and radioactivity in general. I've asked Dr. Zeman,
11 who works in my group at the lab, to come and help
12 just briefly, very quick demonstration. We won't take
13 much time. If you've got that on now, Gary. Thank
14 you.

15 He's got Geiger counter on that, and what the
16 Geiger counter is picking up is natural background
17 radiation. That radiation's everywhere, and so
18 radiation is something you must respect and work with
19 it intelligently, but it's everywhere. It's
20 everywhere.

21 It's in our bodies. I'm radioactive. Gary's
22 picking up gamma rays from -- picking up radiation of
23 various types from cosmic radiation, probably some
24 gamma from the concrete and isotopes in the earth that
25 are coming up through this building and through our

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1 bodies, frankly. So we use it to our advantage in
2 many ways, and I'll tell you how we use it at the lab
3 in a moment, but you encounter it in many ways. You
4 may not suspect it's in all sorts of consumer
5 products, and Gary's going to take a radium watch, a
6 radium dial to show you there. It's used in lots of
7 dials, and see how the counter changes?

8 Much more radioactive, but a common consumer
9 product, some of you may have heart conditions and
10 have to use a salt substitute where you have potassium
11 instead of sodium, a salt substitute -- and Gary's got
12 the salt substitute, and picking up the radiation in
13 the potassium.

14 So radiation is everywhere. That's the only
15 point to this demonstration, and you can take that
16 phenomenon that you're seeing of the Geiger counter,
17 and you can use it to promote knowledge and science,
18 and that's the way we use it in the National Tritium
19 Labeling Facility. We take advantage of that
20 phenomenon to create -- usually we use that phenomenon
21 or phenomena like that to create life in something we
22 call a counter can tell us where a molecule is and how
23 it's moving through a body. So we use it for what we
24 call labeling, and we actually attach it to a
25 molecule.

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1 You might say, well, why tritium? There's
2 lots of other things you can attach to molecules. And
3 the reason that tritium is extremely valuable as a
4 label on molecules is it's one of the smallest changes
5 that you can make to a molecule.

6 Most of us, we're studying living systems,
7 studying life. We're made of carbon, hydrogen, oxygen
8 with a little bit of calcium and phosphorous thrown in
9 there as hardening agent, a little bit of sulfur
10 perhaps thrown in there to make your protein pliable,
11 but we're largely all carbon, hydrogen, and oxygen.

12 So you can take tritium, which looks -- this
13 is tritium, and I've represented this schematically,
14 and it's not really that inaccurate. It looks to a
15 living system exactly like normal hydrogen. So
16 they're carbon and a bunch of hydrogens in a methane
17 molecule, if that was a living molecule, or
18 carbohydrate, the same thing, carbon, hydrogen, and
19 oxygen. You can take a normal hydrogen, replace it
20 with tritium. The molecule doesn't know the
21 difference, and it will act exactly the same in the
22 body, and that's what you want.

23 We've been asked many times why not use
24 fluorescence? We do use fluorescence in the lab in
25 lots of in vitro DNA work, not in vivo. In a living

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1 system, you want the molecule to behave exactly the
2 way it does in life.

3 Fluorescent molecules are often very large,
4 and they often perturb or change the shape of the
5 molecule. So let me show you a real representation of
6 a couple of nucleic acids. This is RNA from the body,
7 and this is DNA, your genetic material. RNA
8 translates your genetic material.

9 The shape of that RNA molecule is extremely
10 important to how it works. Those two little knobs are
11 critical to the functioning of that molecule. We can
12 know more about how that molecule works by putting a
13 tritium label out here, and it won't change the shape
14 of that. It will work exactly the same. That's why
15 tritium is so important in biological research.

16 So what's important about any of this work
17 you do? Are you just having fun up there? Someone
18 said science is fun, and it is. Yes, we're having fun
19 up there, but we think we're solving very important
20 problems. This is only a partial list of some of the
21 areas that National Tritium Labeling Facility
22 contributes to.

23 Somebody that was helping me prepare this
24 talk did a search of the literature this afternoon to
25 find out where tritium is being used today, and we

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1 found citations for our facility all through the
2 literature. One very important set of citations is in
3 work on drug receptors, even abused drug receptors.

4 One area that the treating facility has
5 contributed to working in is understanding where the
6 brain receptor is for cocaine. And if you're going to
7 understand where the brain receptor is, your molecules
8 have to work exactly normally, and so you use tritium
9 instead of a fluorescent molecule. So we do think
10 it's important work.

11 Now, the next question -- that's our view,
12 clearly. Is it dangerous? Are the air emissions
13 dangerous? I'm going to say right up front I'm giving
14 you our point of view here, but we think we can
15 substantiate it. We think regulators agree with us.

16 The levels that are coming out of that
17 facility regulators tell us are absolutely safe, and
18 they've averaged about three percent of the health
19 based standard. In fact, the dose that you would get
20 living right next to our facility is about the same as
21 you would get if you simply relocated your home
22 another 20 to 30 feet higher in the Berkeley hills
23 because you'd get more of that cosmic radiation that
24 Gary was picking up when he first turned on his
25 machine. So you get if you lived right next to our

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1 facility about what you would get if you lived in the
2 third floor of the apartment building versus the first
3 floor.

4 Now, there's been some discussion of
5 historical releases, and this data is available
6 certainly to the task force and the public, and if you
7 look at our emissions over several years, we've worked
8 very, very hard to bring them down. Over the last
9 several years, we brought them down significantly.

10 This year, the emissions from the tritium
11 facility will be about 30 (unintelligible) curies.
12 The year that we had the emission from the
13 treatability study was last year, and that's there.
14 So somebody talked about a release from a treatability
15 study. So we've worked very, very hard. This year
16 here where we were very low was the year that
17 Dr. Shank asked us to stand down the facility for six
18 months to take a very hard look at what we're doing
19 and be very, very critical, bring in people from the
20 outside to criticize us further to make sure we were
21 doing things in as disciplined a fashion as possible.
22 So that was the six-month standout. These are normal
23 operating years.

24 MR. WILLIAMS: Can we ask questions? Put
25 that graph back on there. What was going on in 1985?

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1 MS. DUFFY: That's the question I want
2 to know, too.

3 MR. MCGRAW: Very good question. What
4 was going on in 1985? This reduction here is we
5 started to do a recycling process. In fact -- by the
6 way, just so that you get some sense for the dose,
7 this dose is about one percent of the standard. It's
8 about .0 -- what is it, Ron? Sorry. 2.1 millirem.
9 This is one millirem, two millirem. So we're still
10 far below the standard.

11 FROM THE FLOOR: Can you explain the
12 recycling?

13 MR. MCGRAW: But the answer to your
14 question -- and we will get to that in later
15 discussions -- we started to recycle the tritium back
16 on to what's called a uranium bit. We get the tritium
17 in supply bound to a uranium bit. We were recognized
18 from the State of California for that recycling
19 process.

20 MR. WILLIAMS: What happened before the
21 recycling?

22 MR. MCGRAW: It went out in emissions

23 MS. DUFFY: It what, David?

24 MR. MCGRAW: It went out the stack in
25 emissions.

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1 MR. WILLIAMS: Was that because of an
2 accident or --

3 MR. MCGRAW: No, these are normal
4 emissions. We didn't -- but, again, we have
5 calculated, and I'll show you how we calculate dose to
6 the public. And we've done the calculations for those
7 years, too, and it's far, far below the health
8 standard. The fact is, we could have rested on our
9 laurels in those years and said, "We're at a fraction
10 of health standard. We don't need to do any more."

11 In fact, we worked constantly to do more.
12 That's part of the challenge of running that facility.
13 So we do do a calculation that we're asked to do by
14 the regulators, and it's partly modeling, and it's
15 validated by real samples, and part of the work, we'll
16 ask this group to help us validate further, and that
17 is we do a calculation for what those emissions that I
18 just showed you on those graphs would result in in a
19 dose to what we call the maximally exposed individual,
20 so-called MEI, maximally exposed individual. So the
21 tritium air emissions for the year 1999 here is the
22 standard for maximum exposed individual, 10 millirem.
23 We're way down here at .1. So it's one percent.

24 MS. DUFFY: What would '85 look like on
25 there?

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1 MR. McGRAW: '85 would have been there
2 at 2. In fact, it's 1.985 by the model calculations
3 we used in '83 was .8. So -- but we've gone to a more
4 conservative way of model. It would have been 1.9, so
5 highest spike is right here, right there, still a
6 fraction of the dose.

7 FROM THE FLOOR: That's doesn't take
8 inventory. Show a lot missing, though.

9 MR. McGRAW: No, there's no missing
10 tritium in the environment at all, and, in fact,
11 tritium equilibrates. That's another issue that I
12 think the task force should get to is examining how
13 that's calculated. There's no missing tritium in the
14 environment. The environmental samples, tritium
15 equilibrates in the environment. You can't miss it
16 when you do environmental ambient room sample. You
17 can't miss it. It's there. You got it when you do
18 the samples.

19 MS. DUFFY: Steve had a question.

20 MR. RATHBONE: I have a question. If you
21 don't mind, put the chart back up for a second, if you
22 would, please.

23 MR. McGRAW: Which chart?

24 MR. RATHBONE: The blue chart showing --
25 yeah, there. Okay. So what you're saying is the lab

00079

1 puts out basically one millirem per year?

2 MR. MCGRAW: .1

3 MR. RATHBONE: What's normal background

4 radiation for a year for the average sea level

5 exposure?

6 MR. MCGRAW: I think it's about 20, but

7 I'm going to ask Ron.

8 FROM THE FLOOR: It's 250.

9 MR. MCGRAW: That's totals from all

10 sources. I'm asking tritium

11 MR. RATHBONE: No, I'm talking standard,

12 everything, what does the average John Citizen get at

13 sea level on an annual basis, just even if the lab

14 wasn't here?

15 MR. MCGRAW: Here you go. So in

16 Berkeley, it's two million millirem per year.

17 MR. RATHBONE: So you're saying with the

18 lab there it's 2.1?

19 MR. MCGRAW: Right. The national

20 background is 200 from all sources. This is lower in

21 Berkeley, by the way, than it is many parts of the

22 country. See these charts, it's lower. Here is the

23 radon count here is less.

24 We are not even able to represent accurately

25 on the -- what the NTLF really is. We've represented

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1 it as a sliver, but that's not scale. You couldn't
2 scale it, it's so small on this kind of graph.

3 MR. RATHBONE: Thank you.

4 MR. MCGRAW: What do the regulators
5 think? Is this all a bunch of lab baloney? Well, to
6 date, the regulators have told us that we're in good
7 shape. These are quotes. The EPA reports that
8 tritium emissions at the Berkeley Lab are well
9 controlled under Federal Clean Air Act.

10 That's the standard that I showed you on the
11 graph. You can read these for yourselves, but 50
12 times below the, for example, Clean Air Act's
13 standard, and the bottom one, data don't indicate a
14 need to add LBNL to national priorities listed at this
15 time.

16 MS. DUFFY: I want to ask the task
17 members, because we only have like eight minutes left,
18 but we want you to ask questions. Go ahead.

19 MR. AL-HADITHY: I have also taken quite a
20 lot of these discussions with regulators, and I have
21 heard both EPA and health services indicate that the
22 -- that the level of risk is exceedingly small, well
23 within standards itself.

24 I think some of the community might then --
25 but certainly I would benefit from people who

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1 calculate risks with a different yard stick, different
2 tool. And I think perhaps someone like Gofman might
3 be useful to understand where he's coming from, what
4 he's talking about.

5 Certainly I've heard of his new book that's
6 been published. I've heard people say that it hasn't
7 been peer reviewed; others who say this is gospel.
8 And we at some point here an alternative view on
9 radiation, how it affects human health.

10 MR. MCGRAW: Well, one of the ways I
11 would respond to that is we want to balance point of
12 view from lots of different experts, and I think the
13 task force has to help guide us, but you may want to
14 take this opportunity also to talk about Berndt
15 Franke, who you have contracted with the City of
16 Berkeley, want to talk that at this point what his
17 roll looks like, what his qualifications are, what
18 you're going to do for the City of Berkeley

19 MR. AL-HADITHY: Well, very quickly, the
20 city has contracted recently with IFEU, which is
21 translated into English as the Institute for Energy
22 and Departmental Research of Hamburg, and there --

23 FROM THE FLOOR: Heidelberg.

24 MR. AL-HADITHY: They are a community based
25 advocacy group.

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1 MS. DUFFY: Can everybody hear okay?

2 MR. AL-HADITHY: And they are a choice that
3 has been voiced by community groups commissions, et
4 cetera, who have said that there is a problem with
5 trust, and the problem lies in the fact that DOE is
6 related to LBL, and DOE has some regulatory oversight.
7 City of Berkeley and myself are also regulators. We
8 are somewhat suspect because we are government
9 agencies and maybe in somehow in cahoots or
10 sympathetic to another government agency.

11 So the city council agreed, and we have paid
12 \$30,000 or we will have paid \$30,000 for IFEU to come
13 in and interview hopefully this group who is assembled
14 here, at least most of it, get opinions from them, get
15 their goals, review also the work plan that we're here
16 to discuss, comment on that, and eventually after the
17 results are collected, and, if necessary, the health
18 risks are evaluated, to give an opinion on that. So
19 they will be technical support for the City of
20 Berkeley, which he hopefully will be trusted by
21 communities, commissions, et cetera, as an independent
22 voice.

23 MR. MCGRAW: And I think that consultant
24 might bring -- might reduce that suspicion. We also
25 have contracted with a consultant, Dr. Roland Hoffman,

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1 who is going to help us work with Berndt Franke and
2 with others, and perhaps the task force -- one of the
3 things we might propose is some sessions at later
4 meetings to have that diverse opinion, but I think we
5 have to defer to the task force.

6 MS. DUFFY: I think that's something
7 maybe Berndt Franke will come to one of our meetings.

8 MS. DOUGHERTY: He's in Germany, but I
9 think it would be grand if he could come. Terrific
10 thing. Help establish the --

11 MR. AL-HADITHY: I'm sure that Berndt Franke
12 will -- I think the LBL is communicating with him. I
13 think one of the community members here suggested that
14 Hoffman may have a different perspective.

15 MS. DOUGHERTY: Let's put the name back,
16 G-o-f-m-a-n. One comment that's obviously like an
17 elephant in the room, there's no trust here, you guys,
18 and we all get that. Let's remember that.

19 MS. BERNARDI: Can you speak up?

20 MS. DOUGHERTY: Gene just asked me to speak
21 up. I'll try. We don't have any trust in this room.
22 Is that an elephant or what? There's no reason for
23 you all to trust us, to trust the lab, to trust
24 anybody to date, and so a big piece of people's
25 frustration and anger is not only not being heard. If

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1 you can't trust even what you hear, the data may be
2 fraught or may be filled with or what we're going to
3 do our best to do for you and the task force is to
4 name issues of not trust happening here.

5 When we find people behaving in a duplicitous
6 way or not in agreement with process, we're going to
7 call it so that you guys can learn -- we don't believe
8 you're going to trust each other at the end of day.
9 We don't believe you're going to agree with each
10 other, but we would like it if you could communicate
11 with each other. We would love it if you could give
12 the lab the benefit of doubt someday, but maybe they
13 haven't earned that yet, and that's their new step
14 forward is to try. Okay.

15 And so we just want to name what is obvious
16 so we don't have any nonsense, for lack of a better
17 term, about all -- we should all love each other and
18 trust each other. That would be crap. Okay.

19 MR. MCGRAW: So we've talked --

20 MS. DUFFY: You have to respect each
21 other still there.

22 MR. MCGRAW: We've talked a little bit
23 about how we got to those points of view, and we
24 certainly have gotten our part in it in basis of real
25 data. Let's been our sampling program in a very quick

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1 -- we want to enrich that. We're going to look to you
2 as a task force to help us do this. This is the kind
3 of things these are the kinds of things that we want
4 to be doing.

5 I hope we've partly listened to the community
6 in getting here. We want to listen more through the
7 task force. We're going to respond to ambient
8 sampling, actually got three locations. I put two
9 because two are not yet operating but we now have a
10 new location right at the level of the stack that Ron
11 Power, environmental manager, tells me is, and we're
12 going to expand the soil sampling, sediment creek
13 sampling, although we've been doing that, expand it to
14 do the kind of vegetation sample the community has
15 said they would like to see and water.

16 This is not cast in concrete. This we need
17 input from the task force on, but we have worked with
18 EPA in getting to this point. So the task force --
19 and why -- this is -- are really my closing comments
20 -- and Chuck said most of this, Dr. Shank said most of
21 this, but these will be my last slides.

22 The laboratory does want this to be a real
23 forum. I know you don't believe that yet. We hope we
24 can get this. We do want to listen. We do want to
25 exchange knowledge, and I want to emphasize the word

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1 exchange. This is not -- may sound a little one way
2 tonight. We want to listen to the community. We want
3 also the community to hopefully listen to us, too, so
4 that's an exchange of the knowledge.

5 We do want to get to some sort of mutual
6 beneficial relationship. I'm not sure I know how to
7 define that yet, and I think I don't know how to
8 define that yet because of some of the lack of trust.
9 I like the phrase shared meaning. It may not get us
10 to agreement. That's not agreement. It's finally
11 understanding what each other are saying, such as I
12 believe in zero risk versus I believe in some
13 acceptable risk.

14 And I put this one in because I think if we
15 can get here, that we will come out of this a little
16 wiser, and we tend to be empirical scientists at the
17 lab. Maybe we can make -- maybe that will help us be
18 a little wiser.

19 If we can get there with your help, then we
20 really want input on sampling issues so that the task
21 force will become familiar with that sampling, review
22 it, comment on it. We'll invite you out to do
23 observations in the field. We'll invite you out to do
24 the sampling with us, review and comment.

25 The analytical results all of this data will

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1 be made available, and we're going to submit your
2 comments to the EPA and DOE and broader community,
3 distribute them to the broader community through the
4 web and by placing data in the library. If that
5 becomes a huge hardship, we'll find other ways to do
6 it.

7 And so in summary, my last slide, monitoring
8 and risk up to the present time we think should be
9 reassuring. They re-assure you. We know that you
10 don't trust it. Therefore, we want to do this. We
11 want to be as open as possible to be. We worked daily
12 at this one, as I hope that chart showed you, and as
13 Dr. Shank said, I am the laboratory when I'm sitting
14 on this task force, and so I do have access to
15 Dr. Shank. I know Dr. Shank will drop in and out of
16 these meetings when his time permits. He won't have
17 time to sit on the task force, but I am the laboratory
18 while I'm here. So --

19 MS. DOUGHERTY: Thanks, David. You went
20 three minutes over. You're in trouble now.

21 MS. DUFFY: One thing we didn't mention
22 about our style is that there's no chair in this
23 meeting. So just know we don't use a chair, and any
24 kind of chair in this type of meeting, and you have a
25 question, Amy?

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1 MS. KYLE: I'm curious why EPA
2 recommended more sampling? If all the numbers are so
3 far below the standards as you've said, why did they
4 then recommend more sampling?

5 MR. MCGRAW: I don't want to speak for
6 EPA, so I will give you my opinion. I don't want to
7 speak for them. They may want to speak for themselves
8 through Periann. I think when the EPA is petitioned
9 by any community interest group, any concerned
10 citizen, that the EPA tries to respond to that. And
11 the way they responded to the petition from this
12 community was they asked us to do more sampling. Is
13 that accurate, Periann?

14 MS. WOOD: I think that's a fairly
15 good summary of why there are more samplings being
16 done.

17 MS. KYLE: Is that basically the same
18 reason that the lab is pursuing more sampling, then?

19 MR. MCGRAW: I think that the lab -- I
20 don't think -- I know that the lab will do more
21 sampling if the EPA told us tomorrow, "Well, we've
22 changed our mind. We don't want to do anything." We
23 want to move forward and do more sampling. We want to
24 build trust in the community

25 MR. WILLIAMS: I guess my question,

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1 follow-up question on that would be is the
2 determinative sampling that you've done so far as is
3 the data so variable that you have to determine the
4 number of samples for each of those particular
5 vegetation, water, and so forth to reduce or at least
6 to increase your level of confidence in the final
7 data?

8 MR. MCGRAW: I can't sit here and tell
9 you -- I can quote the competence or the errors to you
10 tonight. The data is not highly variable at all. In
11 fact, the most consistent thing about the data is
12 negative results. So very, very -- results very close
13 to detectability, but we do get positive results
14 periodically, but the most consistent thing about the
15 data is the negative data.

16 MR. WILLIAMS: You had different numbers
17 of additional samples that you wanted to take for the
18 various, you know, environmental areas. I was
19 wondering how you --

20 MR. MCGRAW: How we arrived at those?

21 MR. WILLIAMS: How you arrived at that.
22 Seemed to be some variation in the data.

23 MR. MCGRAW: I'll give you a general
24 answer, and I will ask that we schedule one of our
25 later sessions, one of the people doing this session

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1 come and explain that in more detail. It was a little
2 bit different for each meeting.

3 For example, the air sampling is partly
4 ambient sample, partly predicated on wind direction
5 and prevailing winds, and we, in fact, have a model
6 for -- based on for windy daylight hours, winter, in
7 the evening, and that's -- so those are the kind of
8 things that determine that, and then the other media,
9 for example, the surface water, is determined in
10 bodies of water that are close to those prevailing
11 wind ranges.

12 MR. WILLIAMS: How about the vegetation;
13 there are number of plant species out there that might
14 have different ability or affinity for the material.
15 How did you get your --

16 MR. MCGRAW: We certainly look to your
17 expertise in that area.

18 MR. WILLIAMS: I don't know anything about
19 tritium.

20 MR. MCGRAW: Let us do that, but if you
21 know of plant species' ability to reclaim water, for
22 example, versus another, that might be another an
23 interesting topic to pursue because a lot of tritium
24 -- so we did this vegetation sampling largely because
25 it was something the community wanted, and that's an

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1 area that we may want to look at in greater detail for
2 having a good technical basis for how these species
3 were selected, how the grids are set out.

4 MS. BERNARDI: I understand that there are
5 some community members that would like to respond to
6 what's been said here, and I would like to give my
7 time to them.

8 MS. DUFFY: We need to end right now.
9 That can't occur.

10 FROM THE FLOOR: We need another public
11 comment.

12 MS. BERNARDI: I'll have something to say,
13 then. What I would like to say -- I'm rather confused
14 because I thought that you were -- the lab was here to
15 have this group decide where the sampling would be
16 done, and Mr. McGraw's speaking as though they've
17 already decided what they're going to do. I'm really
18 confused.

19 MS. DOUGHERTY: Let's ask David.

20 MR. MCGRAW: Actually, I thought I said
21 -- if I didn't say that this was -- I thought I said
22 this was not cast in concrete, that this is
23 modifiable. I want to emphasize that, and we'll be
24 looking to the task force to help.

25 MS. DOUGHERTY: My understanding is that

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1 it's not at all set, and you guys are going to have --

2 MS. DUFFY: It's a proposal.

3 MS. BERNARDI: I would like to hear from
4 the people --

5 MS. DUFFY: We're in charge.

6 MS. BERNARDI: -- of the sampling plan

7 MS. DOUGHERTY: No, no, we're teasing you.

8 Thank your for your time and attention, and we
9 appreciate that, and number two, we often are chided.
10 We're often chided, Pat and I, for our use of humor.
11 However, we would comment that in a very tense
12 situation like this, one which is very difficult, it's
13 sometimes helpful to release tension by laughing.

14 And there's one other thing. If any task
15 force member feels like they're being bothered or
16 harassed or feel bad about the process and they need
17 to speak to Pat and I, please call us, and we will be
18 happy --

19 MS. DUFFY: In fact, it's important to
20 you that you --

21 MR. BRIGHT: Where can we get a roster
22 of the task force with their names on it?

23 MS. DOUGHERTY: California Privacy Act
24 prevents the laboratory from releasing that
25 information without your individual permission. So if

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1 you're a member of the task force and you're okay with
2 other task force members contacting you, then we'll
3 just put out a sign-up sheet and sign up and put your
4 name and address down, but they can't release it. Is
5 that right, Terry?

6 FROM THE FLOOR: Yes, or you can just tell
7 us at the lab to make your information available.

8 MS. DUFFY: What number should they
9 call?

10 MS. DOUGHERTY: 486-4387.

11 MR. BRIGHT: I don't understand. When I
12 first sat down here, somebody passed around a sign-up
13 sheet, okay, which I put my name on, and my
14 affiliation. All right. And when I do that, I
15 normally expect that the other people in the room will
16 do the same thing, and if the lab is not going to do
17 that, then, one, I want my name back, and, two, I
18 don't want to participate in a process where people
19 aren't open enough to at least give us their name and
20 their phone numbers.

21 MS. DOUGHERTY: Wait a second. Did I say
22 the lab wouldn't do that? I'm sorry. The California
23 Privacy Act doesn't allow them to release your
24 information to anybody else unless you say so. It's
25 not about them. They've not said they won't be able.

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1 They're saying that they can't -- they're available.

2 If I misspoke it's my --

3 (Discussion overlapping.)

4 MS. DOUGHERTY: Call Terry Powell or check
5 your name on the sign-up sheet.

6 MS. DUFFY: Just put an okay by your
7 name. I ran up about the -- I thought we were
8 closing. I want you all to know that we don't use a
9 chair in these meetings. Another closing.

10 MS. DOUGHERTY: Last closing. Dr. Franke
11 we understand to be able to help us out is available
12 or at the end of February. We would like to try to --
13 Dr. Franke as the city's advisor is able to come to
14 the meetings. If he's able to do or willing or
15 whatever the Wednesday, fourth Wednesday --

16 MS. DUFFY: No, it's the first, the
17 February -- the Thursday, we understand there's a CF
18 meeting. So that would be bad timing. Is that right?
19 So we can't do it on Thursday. So Wednesday, just for
20 the members, can people come February 1st?

21 MS. DOUGHERTY: No. No. No. No.

22 MS. DUFFY: Oh, yeah, it's March 1st.
23 You're right.

24 MS. DOUGHERTY: Does anybody have a
25 calendar? Is it March 1? Terry, March 1 is the date

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1 we're shooting for.

2 MS. POWELL: That's fine. Right.

3 Dr. Franke here on March 1st

4 MR. AL-HADITHY: I think he's coming on 20
5 something, 27th, 28.

6 MS. DOUGHERTY: We're trying to get a date
7 to Mr. Franke, or whatever. I don't know his title.
8 Will be able to attend the meeting on behalf of some
9 of the community members. Thank you very much.

10 MS. DUFFY: It is March 1st. Thank you
11 very much. And please call us if you have a question,
12 comments, if you don't want to come anymore.

13 (The meeting was adjourned at 8:41 p.m.)

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CERTIFICATE

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I, the undersigned, a Certified Shorthand

4

Reporter for the State of California, hereby certify

5

that the foregoing proceedings were reported by me, a

6

disinterested person, to the best of my ability, and

7

were thereafter transcribed under my direction into

8

typewriting.

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Executed this 7th day of February, 1999.

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LAURA AXELSEN, CSR NO. 6173

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